

**Dr. Duke's Phytochemical and Ethnobotanical Databases**

**List of Plants for BETA-PHELLANDRENE**

Plant	Part	Low PPM	High PPM	StdDev	Reference
Anethum graveolens	Shoot Essent. Oil	82100.0	169300.0	1.0	--
Piper cubeba	Fruit Essent. Oil	120000.0	130000.0	1.7285017610948525	--
Zingiber officinale	Rhizome Essent. Oil	57000.0	106700.0		--
Petroselinum crispum	Seed Essent. Oil		71000.0	1.8705559734598718	--
Citrus limon	Pericarp Essent. Oil		65900.0		Jim Duke's personal files.
Piper nigrum	Fruit Essent. Oil		41000.0	-0.47230877878271366	--
Eucalyptus globulus	Leaf Essent. Oil		36000.0	2.0530780562532986	--
Petroselinum crispum	Fruit Essent. Oil		35100.0	-0.618205207830777	--
Eucalyptus globulus	Fruit Essent. Oil		34300.0	-0.6379877744813619	--
Myristica fragrans	Seed Essent. Oil		34000.0	0.31642638473198437	--
Elettaria cardamomum	Seed Essent. Oil		32500.0	0.2534211311349079	--
Anethum graveolens	Essential Oil		31600.0	1.724225349934716	--
Mentha pulegium	Essential Oil	800.0	20000.0	0.6280219486295257	--
Oenanthe aquatica	Fruit	8000.0	20000.0	2.9810127845731307	--
Myristica fragrans	Essential Oil		20000.0	0.6280219486295257	--
Coriandrum sativum	Seed Essent. Oil	400.0	18600.0	-0.3304275521980012	--
Origanum majorana	Essential Oil		14000.0	0.06102018933373759	--
Pinus sylvestris	Leaf Essent. Oil		13000.0	0.1553903686246635	--
Eucalyptus citriodora	Leaf Essent. Oil		12000.0	0.07288220829298371	--
Coleus barbatus	Root Essent. Oil		10000.0	1.0	Jim Duke's personal files.
Melaleuca alternifolia	Root Essent. Oil		6300.0	-1.0	--
Melaleuca alternifolia	Essential Oil		5800.0	-0.713882215037173	--
Angelica archangelica	Root	50.0	5320.0	1.0	--
Petroselinum crispum	Seed	43.0	4970.0	1.6370507088688995	--
Citrus limon	Leaf Essent. Oil		3300.0	-0.6449387865926303	Jim Duke's personal files.
Zingiber officinale	Rhizome	32.0	2850.0		--
Anethum graveolens	Leaf	120.0	2100.0	4.5514578733129	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Apium graveolens</i>	Fruit		2000.0	-0.1272127645580522	--
<i>Canarium indicum</i>	Essential Oil	800.0	2000.0	-1.0729833292578388	--
<i>Apium graveolens</i>	Seed Essent. Oil	200.0	2000.0	-1.027685692005648	--
<i>Anethum graveolens</i>	Seed	25.0	1925.0	-0.06920272549899337	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Anethum graveolens</i>	Fruit	168.0	1925.0	-0.1401637043460988	--
<i>Skimmia arborescens</i>	Leaf	325.0	1560.0	3.2616839173212973	--
<i>Valeriana officinalis</i>	Leaf Essent. Oil		1400.0	-0.8017042912228218	--
<i>Artemisia dracunculus</i>	Shoot	100.0	1070.0	4.04416490771926	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Foeniculum vulgare</i>	Seed	170.0	1020.0	-0.5763158151879731	--
<i>Foeniculum vulgare</i>	Fruit	170.0	1020.0	-0.2964383777885277	--
<i>Salvia officinalis</i>	Leaf Essent. Oil		1000.0	-0.8347075553554938	--
<i>Illicium verum</i>	Fruit	220.0	835.0	-0.32838402926570937	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Hyssopus officinalis</i>	Leaf	1.0	800.0	1.4464464977775597	--
<i>Origanum vulgare</i>	Shoot Essent. Oil		800.0	-1.0	--
<i>Pimenta racemosa</i>	Leaf	230.0	780.0	1.398677092000093	--
<i>Cuminum cyminum</i>	Seed Essent. Oil		700.0	-1.0822902451231144	--
<i>Juniperus communis</i>	Fruit	66.0	660.0	-0.3586028887711514	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Murraya koenigii</i>	Leaf	140.0	560.0	0.8732136284479584	--
<i>Lindera benzoin</i>	Fruit	400.0	545.0	-0.37846099644615616	--
<i>Petroselinum crispum</i>	Leaf	60.0	530.0	0.8015595197817582	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus lansdowneana	Leaf		430.0	0.5627124908944243	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Sympyomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364
Mentha pulegium	Plant	3.0	400.0	2.9918668917708637	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Hyssopus officinalis	Shoot		380.0	1.0304095190337315	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Satureja obovata	Leaf		360.0	0.3955195706732905	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . Phytochemistry 35(1): 83.
Hyssopus officinalis	Flower	34.0	348.0		Flavour and Fragrance Journal, 6: 69.
Hyssopus officinalis	Shoot		330.0	0.8120214473898526	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Hyssopus officinalis	Shoot		330.0	0.8120214473898526	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Satureja obovata	Leaf		300.0	0.2522113533408902	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . Phytochemistry 35(1): 83.
Hyssopus officinalis	Shoot		290.0	0.6373109900747495	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Hyssopus officinalis	Shoot		280.0	0.5936333757459736	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) <i>J. Agric. Food Chem.</i> 42: 776-781.
Cuminum cyminum	Fruit	90.0	279.0	-0.4243936628944281	--
Cuminum cyminum	Seed	90.0	279.0	-0.9915321681819333	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Levisticum officinale	Root	24.0	240.0	-1.0	--
Hyssopus officinalis	Shoot		190.0	0.20053484678699166	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) <i>J. Agric. Food Chem.</i> 42: 776-781.
Daucus carota	Shoot		177.0	0.14375394815958314	--
Origanum majorana	Plant	27.0	155.0	0.6528644248365976	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Lycopus uniflorus	Plant	107.0	154.0	0.643317475991968	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Cistus ladaniferus	Plant	2.0	140.0	0.5096601921671527	--
Satureja obovata	Leaf		110.0	-0.2015980015450442	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . <i>Phytochemistry</i> 35(1): 83.
Satureja obovata	Leaf		110.0	-0.2015980015450442	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . <i>Phytochemistry</i> 35(1): 83.
Eucalyptus tetraptera	Leaf		100.0	-0.2254827044337776	Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> .Part I.Subgenus <i>Sympyomyrtus</i> ,Section <i>Dumaria</i> ,Series <i>Incrassatae</i> .Flavour and Fragrance J.9(3):113-7

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus sparsa	Leaf		100.0	-0.2254827044337776	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus forrestiana	Leaf		95.0	-0.2374250558781443	Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Sympyomyrtus,Section Dumaria, Series Incrassatae.Flavour and Fragrance J.9(3):113-7
Citrus aurantiifolia	Fruit		90.0	-0.45703003116030555	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Citrus limon	Essential Oil		80.0	-1.254423892232491	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Eucalyptus ceratocorys	Leaf		80.0	-0.2732521102112444	Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Sympyomyrtus,Section Dumaria, Series Incrassatae.Flavour and Fragrance J.9(3):113-7
Melaleuca alternifolia	Leaf		75.0	-0.2851944616556111	--
Hyssopus officinalis	Shoot		60.0	-0.3672741394870935	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Origanum vulgare	Plant		60.0	-0.2540957154032198	Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four <i>Origanum vulgare</i> Subspecies of Anatolian Origin. J. Ess. Oil Res., 5: 425-431.
Origanum vulgare	Plant	12.0	60.0	-0.2540957154032198	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Origanum syriacum</i>	Shoot		60.0	-0.3672741394870935	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of <i>Origanum syriacum</i> L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
<i>Origanum syriacum</i>	Shoot		60.0	-0.3672741394870935	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of <i>Origanum syriacum</i> L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
<i>Hyssopus officinalis</i>	Shoot		50.0	-0.41095175381586924	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.). J. Agric. Food Chem. 42: 776-781.
<i>Hyssopus officinalis</i>	Shoot		50.0	-0.41095175381586924	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.). J. Agric. Food Chem. 42: 776-781.
<i>Teucrium cyprium</i>	Leaf		50.0	-0.34490621887744455	Arnold, N., Bellomaria, B., Valentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some <i>Teucrium</i> Species from Cyprus. J. Ethnopharm. 35: 105-113.
<i>Abies alba</i>	Plant	32.0	46.0	-0.387752999228035	--
<i>Umbellularia californica</i>	Plant	10.0	40.0	-0.44503469229581294	--
<i>Origanum onites</i>	Shoot		38.0	-0.4633648910104002	Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. Flav. & Frag. J. 8: 331-7.
<i>Valeriana officinalis</i>	Leaf		35.0	-0.3807332732105446	Father Nature's Farmacy: The aggregate of all these three-letter citations.
<i>Thymus riatarum</i>	Shoot		35.0	-0.4764681753090329	Iglesias, J., Vila, R., Canigueral, S., Bellakdhar, and II Idrissi, A. 1991. Analysis of the Essential Oil of <i>Thymus riatarum</i> . J. Ess. Oil Res. 3: 43-4.
<i>Hedeoma drummondii</i>	Plant	9.0	31.0	-0.5309572318974799	--
<i>Ocimum gratissimum</i>	Plant	5.0	30.0	-0.5405041807421095	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Salvia officinalis</i>	Leaf	5.0	28.0	-0.39745256523265804	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Micromeria teneriffae</i>	Leaf		20.0	-0.41656032754364475	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . <i>J. Ess. Oil Res.</i> , 3: 387-393.
<i>Teucrium kotschyanum</i>	Leaf		18.0	-0.4213372681213914	Arnold, N., Bellomaria, B., Valentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some <i>Teucrium</i> Species from Cyprus. <i>J. Ethnopharm.</i> 35: 105-113.
<i>Trichostemma dichotomum</i>	Shoot		18.0	-0.5507201196679516	Tucker, A.O. and Maciarello, M.J. 1990. The Essential Oil of <i>Trichostemma dichotomum</i> . <i>J. Ess. Oil Res.</i> 2: 149-150.
<i>Eucalyptus desquamata</i>	Leaf	0.0	15.0	-0.4285026789880114	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Sympyomyrtus</i> , Section <i>Adnataria</i> . <i>Flavour and Fragrance J.</i> 10(6):359-364
<i>Micromeria varia</i>	Shoot		15.0	-0.5638234039665844	Pedro, L.G., et al. 1995. Composition of the Essential oil of <i>Micromeria varia</i> Benth. ssp. <i>thymoides</i> (Sol. ex Lowe) Perez var. <i>thymoides</i> , and endemic species of the Madeira Archipelago. <i>flav. &amp; Fragr. J.</i> 10(3): 199-202.
<i>Micromeria varia</i>	Shoot		15.0	-0.5638234039665844	--
<i>Eucalyptus incrassata</i>	Leaf		14.0	-0.43089114927688477	Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> .Part I.Subgenus <i>Sympyomyrtus</i> ,Section <i>Dumaria</i> ,Series <i>Incrassatae</i> . <i>Flavour and Fragrance J.</i> 9(3):113-7
<i>Coriandrum sativum</i>	Fruit	1.0	13.0	-0.4703263293427	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Eucalyptus stoatei</i>	Leaf		13.0	-0.4332796195657581	Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> .Part I.Subgenus <i>Sympyomyrtus</i> ,Section <i>Dumaria</i> ,Series <i>Incrassatae</i> .Flavour and Fragrance J.9(3):113-7
<i>Teucrium divaricatum</i>	Leaf		12.0	-0.43566808985463146	Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some <i>Teucrium</i> Species from Cyprus. J. Ethnopharm. 35: 105-113.
<i>Eucalyptus leucoxylon</i>	Leaf		10.0	-0.4404450304323781	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Sympyomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364
<i>Eucalyptus porosa</i>	Leaf		10.0	-0.4404450304323781	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Sympyomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364
<i>Citrus limon</i>	Petiole		8.0		--
<i>Eucalyptus erythrandra</i>	Leaf		7.0	-0.44761044129899813	Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> .Part I.Subgenus <i>Sympyomyrtus</i> ,Section <i>Dumaria</i> ,Series <i>Incrassatae</i> .Flavour and Fragrance J.9(3):113-7
<i>Eucalyptus cuprea</i>	Leaf		6.4	-0.4490435234723222	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Sympyomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Eucalyptus dolichorhyncha</i>	Leaf		6.0	-0.4499989115878715	Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> .Part I.Subgenus <i>Sympyomyrtus</i> ,Section <i>Dumaria</i> ,Series <i>Incrassatae</i> .Flavour and Fragrance J.9(3):113-7
<i>Eucalyptus intertexta</i>	Leaf		5.5	-0.45119314673230815	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Sympyomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364
<i>Origanum vulgare</i>	Plant		5.0	-0.7791779018578511	Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four <i>Origanum vulgare</i> Subspecies of Anatolian Origin. J. Ess. Oil Res., 5: 425-431.
<i>Eucalyptus largisparsa</i>	Leaf		4.6	-0.4533427699922941	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Sympyomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364
<i>Eucalyptus odorata</i>	Leaf		4.4	-0.4538204640500689	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Sympyomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364
<i>Pelargonium citrosum</i>	Shoot		4.0	-0.6118687797282377	Matsuda, B. M., et al. 1996. Essential Oil Analysis and Field Evaluation of the Citrosa Plant 'Pelargonium citrosum' as a Repellent Against Populations of <i>Aedes</i> Mosquitoes. J. Am. Mosq. Contr. Assoc. 12(1):69-74.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Origanum vulgare	Plant		4.0	-0.7887248507024808	Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four <i>Origanum vulgare</i> Subspecies of Anatolian Origin. <i>J. Ess. Oil Res.</i> , 5: 425-431.
Thymus longicaulis	Shoot		3.0	-0.6162365411611153	Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of <i>Thymus longicaulis</i> C. Presl subsp. <i>longicaulis</i> in the same Population. <i>J. Ess. Oil Res.</i> 5: 291-5.
Thymus longicaulis	Shoot		3.0	-0.6162365411611153	Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of <i>Thymus longicaulis</i> C. Presl subsp. <i>longicaulis</i> in the same Population. <i>J. Ess. Oil Res.</i> 5: 291-5.
Eucalyptus behriana	Leaf		2.7	-0.45788086354115354	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Sympyomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364
Eucalyptus populnea	Leaf		1.8	-0.46003048680113945	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Sympyomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364
Eucalyptus angulosa	Leaf		1.5	-0.4607470278878015	Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> .Part I.Subgenus <i>Sympyomyrtus</i> ,Section <i>Dumaria</i> ,Series <i>Incrassatae</i> .Flavour and Fragrance J.9(3):113-7

Plant	Part	Low PPM	High PPM	StdDev	Reference
Vitex agnus-castus	Leaf		1.4	-0.4609858749166889	Ekundayo, O., Laakso, I., Holopainen, M., Hiltunen, R., Oguntiemein, B., and Kauppinen, V. 1990. The Chemical Composition and Antimicrobial Activity of the Leaf Oil of Vitex agnus-castus L. J. Essential Oil Research, 2: 115-119.
Eucalyptus fasciculosa	Leaf	0.0	1.3	-0.4612247219455761	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Origanum vulgare	Plant		1.0	-0.8173656972363698	Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four Origanum vulgare Subspecies of Anatolian Origin. J. Ess. Oil Res., 5: 425-431.
Eucalyptus melanophloia	Leaf	0.0	0.8	-0.4624189570900128	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus ochrophloia	Leaf		0.5	-0.4631354981766748	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus viridis	Leaf	0.0	0.5	-0.4631354981766748	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Hyssopus officinalis</i>	Shoot		0.1	-0.6289030493164603	Tsankova, E.T., Konatchiev, A.N. and Genova, E.M. 1993. Chemical Composition of the Essential Oils of Two <i>Hyssopus officinalis</i> cultivars. <i>J. Ess. Oil Res.</i> 5: 609-611.
<i>Thymus capitatus</i>	Shoot		0.0	-0.629339825459748	Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. <i>Flav. &amp; Frag. J.</i> 8: 331-7.
<i>Teucrium micropodioides</i>	Leaf		0.0	-0.4643297333211115	Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some <i>Teucrium</i> Species from Cyprus. <i>J. Ethnopharm.</i> 35: 105-113.
<i>Thymus longicaulis</i>	Shoot		0.0	-0.629339825459748	Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of <i>Thymus longicaulis</i> C. Presl subsp. <i>longicaulis</i> in the same Population. <i>J. Ess. Oil Res.</i> 5: 291-5.
<i>Sassafras albidum</i>	Leaf		0.0	-0.4643297333211115	--
<i>Boswellia sacra</i>	Essential Oil				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Gossypium sp</i>	Plant				--
<i>Hyssopus officinalis</i>	Essential Oil				--
<i>Tagetes minuta</i>	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Piper auritum</i>	Leaf				Tramil
<i>Mentha arvensis</i> var. <i>piperascens</i>	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Trachyspermum ammi</i>	Plant				--
<i>Cinnamomum verum</i>	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Hyssopus officinalis</i>	Shoot				Tsankova, E.T., Konatchiev, A.N. and Genova, E.M. 1993. Chemical Composition of the Essential Oils of Two <i>Hyssopus officinalis</i> cultivars. <i>J. Ess. Oil Res.</i> 5: 609-611.
<i>Angelica archangelica</i>	Fruit				--
<i>Angelica archangelica</i>	Root Essent. Oil				--
<i>Pelargonium graveolens</i>	Essential Oil				--
<i>Rosmarinus officinalis</i>	Plant				--
<i>Pinus sylvestris</i>	Resin, Exudate, Sap				--
<i>Agathosma betulina</i>	Leaf Essent. Oil				--
<i>Lavandula angustifolia</i>	Flower				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Carum carvi</i>	Seed				Wealth of India.
<i>Eucalyptus globulus</i>	Essential Oil				--
<i>Thymus vulgaris</i>	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
<i>Thymus vulgaris</i>	Essential Oil				--
<i>Pimenta dioica</i>	Plant				--
<i>Schinus molle</i>	Fruit				--
<i>Valeriana officinalis</i>	Root				--
<i>Boswellia serrata</i>	Essential Oil				--
<i>Pastinaca sativa</i>	Root				--
<i>Allium sativum</i> var. <i>sativum</i>	Bulb				Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
<i>Thymus capitatus</i>	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Ribes nigrum	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Ribes nigrum	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Piper cubeba	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Juniperus communis	Leaf Essent. Oil				--
Juniperus communis	Essential Oil				--
Juniperus communis	Fruit Essent. Oil				--
Pimenta dioica	Fruit				--
Abies balsamea	Gum				--
Citrus paradisi	Pericarp				--
Satureja hortensis	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Anethum graveolens	Root				--
Carica papaya	Fruit				--
Laurus nobilis	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Pinus mugo	Leaf				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Anethum graveolens	Root Essent. Oil				--
Anethum graveolens	Seed Essent. Oil				--
Myrciaria dubia	Fruit				--
Pinus sylvestris	Essential Oil				--
Pinus sylvestris	Flower				--
Pinus sylvestris	Twig				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Piper nigrum	Seed Essent. Oil				--
Sassafras albidum	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Ribes nigrum	Bud				--
Pinus palustris	Resin, Exudate, Sap				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Coriandrum sativum	Essential Oil				--
Tagetes minuta	Shoot Essent. Oil				--
Tagetes minuta	Leaf Essent. Oil				Zygadlo, J. S., Guzman, C. A., Grosso, N. R. 1994. Antifungal Properties of the Leaf Oils of Tagetes Minuta L. and T. filifolia Lag. J. Essent. Oil Res. 6 6: 617-621. Cat Quim Org Fac Cien Exact Univ Nacion Cordoba Cordoba 5000 Argentina.
Rosmarinus officinalis	Leaf Essent. Oil				--